

REMARKS

With the forgoing amendment, claims 45-48 are pending in the application, with claim 45 being in independent form. Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections, and that they be withdrawn.

Drawings

The drawings are objected to because figures 8A, 8B, 13A, 13B, 14A, 14B, 15A, 15B, 16A and 16B are not described in the specification. With the foregoing amendment, Applicant has amended the specification to refer to the above mentioned figures. Applicant, therefore, respectfully requests that the objection to the drawings be withdrawn.

Claim Rejections 35 U.S.C. 112, first paragraph

At paragraph 3 of the Office Action, claims 45-48 are rejected under 35 U.S.C. 112, first paragraph as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention.

The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation. See M.P.E.P. § 2164.01. To satisfy the enablement requirement, the specification need only disclose at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim. See M.P.E.P. § 2164.01(b).

Applicants respectfully submit that the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of claims 45-48. As one example, figures 14A and 14B illustrate one embodiment of the invention. These figures illustrates the embodiment in sufficient detail to enable one reasonably skilled in the art to make and use the embodiment without undue experimentation. Moreover, the description of figures 14A and 14B, which can be found on page 19 of the specification, further enable one reasonably skilled in the art to make and use the invention. There are numerous other figures and sections of the specification, which Applicants could point to, that would enable one

reasonably skilled in the art to make and use the other embodiments of the invention without undue experimentation. Applicants, therefore, respectfully request that enablement rejection of claims 45-48 be withdrawn.

To assist the Examiner in understanding different embodiments of the invention, Applicants will answer the some of the questions posed by the Examiner.

Question 1: The disclosure of the invention does not provide as to how electricity will be generated. Is it due to the vertical motion of shaft 42, which in turn will make the coil and the magnet create a magnetic field?

First, the Examiner should appreciate that there are several different embodiments of the invention described in the specification, and each different embodiment may have a different mechanism for generating the electricity. For example, figures 1, 14B, 15B, 16B, 17, 18, and 19 each illustrate a different embodiment of the invention, and each of these different embodiments may generate electricity in a different way. Furthermore, anyone with a basic knowledge of the electro-mechanical arts will appreciate that it is well within the ability of a person reasonably skilled in the art to generate electricity using any one of the embodiments. The basic point is that, for example, in figures 14-16 the prime mover 40 causes movement of piston 42 or shaft 42A. A person reasonably skilled in the art could easily convert the mechanical movement of piston/shaft 42 into electricity. In fact, figure 17 explicitly illustrates on possible way to convert mechanical motion into electricity.

Question 2: "How the generator will switch places by been on top of the prime mover 40 (see figure 16) and then in figure 15 the generator is below the prime mover."

Figures 15 and 16 illustrate two different embodiments of the invention. Thus, the Examiner's question is not applicable.

Question 3: "Also, the disclosure mentions that the buoyant tank is below the water, yet in figure 1, the buoyant tank is above the surface."

The examiner is failing to appreciate that the specification describes several different embodiments. In some embodiments (e.g., the embodiment shown in FIG. 1), the tank is only

partially submerged. Whereas in other embodiments (e.g., the embodiment shown in FIG. 14B), the prime mover is completely submerged.

Claim Rejections under 35 U.S.C. 112, second paragraph

At paragraph 3 of the Office Action, claims 45-48 are rejected under 35 U.S.C. 112, second paragraph as being indefinite. Applicant respectfully traverses this rejection.

Claim 45 is not indefinite. Claim 45 clearly recites that the "axis" is substantially perpendicular to the direction of flow of the current. Moreover, there is nothing indefinite about the term "substantially perpendicular." "The term 'substantially' is often used in conjunction with another term to describe a particular characteristic of the claimed invention." M.P.E.P. § 2173.05(b). In this case, the phrase "substantially perpendicular" is meant to represent that the body, being in a turbulent body of water, such as the ocean, and at any given point in time, the axis may not be exactly perpendicular to the direction of the current, taking in effect waves, rip currents, etc.

Claim 46 is not indefinite. With respect to claim 46, the Examiner asks, "how are the control members reversed?" This question indicates that the Examiner may have misread the claim. Claim 46 recites that the "direction of thrust is reversed," claim 46 does not recite that the control members are reversed. Thus, the Examiner's objection to claim 46 is not applicable.

Claim 48 is not indefinite. The Examiner objects to claim 48 because it is a "method" claim that depends from claim 45, which is an "apparatus" claim. However, there is nothing in the patent statute or the patent rules that preclude a method claim from referring to an apparatus claim. In fact, the M.P.E.P. itself recognizes that such claims are not automatically indefinite. See M.P.E.P. 2173.05(f). Nevertheless, if the Examiner insists, Applicant will consider recasting claim 48 so that it does not depend from claim 45, but Applicant would prefer to leave claim 48 as it stands.

Claim Rejections Under 35 U.S.C. 103

At paragraph 7 of the Office Action, claims 45-48 are rejected under 35 U.S.C. § 103 as being obvious over Cockerell (U.S. 4,210,821) in view of Vowles (U.S. 6,109,209) and Arnold (U.S. 4,347,036). Applicant respectfully traverses these rejections.

Applicants respectfully submit that claim 45 is allowable over Cockerell in view of Vowles and Arnold because neither Cockerell, Vowles, nor Arnold, considered alone or in combination, teach or suggest all of the features of claim 45. For example, at the least, neither Cockerell, Vowles, nor Arnold, considered alone or in combination, teach or suggest a prime mover comprising "a body [and] first and second control members protruding from respective sides of the body ..., said control members being mounted for rotation in unison about a common axis ...," as is recited in claim 45.

In figure 24 of Cockerell, Cockerell discloses a body (see item 88) and a control member (see item 87). As shown in figure 24, the control member 87 protrudes from a side of the body. Cockerell, however, fails to disclose a second control member that protrudes from an opposite side of the body, as is claimed in claim 45. Consequently, Cockerell fails to teach or suggest "a body [and] first and second control members protruding from respective sides of the body ..., said control members being mounted for rotation in unison about a common axis ...," as is recited in claim 45.

Neither Vowles nor Arnold make up for the deficient teachings of Cockerell. In figure 1 of Vowles, Vowles discloses a body (see item 47). As shown in figure 1, a first stiff arm (see item 55) is connected to one side of the body 47 and a second stiff arm 55 is connected to the opposite side of the body 47. Vowles, however, does not teach or suggest that the first and second stiff arms 55 are "mounted for rotation in unison about a common axis."


Arnold discloses a plurality of air foils (see item 18). The air foils are disposed within a frame (see item 16). There is simply no teaching or suggestion in Arnold to arrange a first air foil and a second air foil so that the two air foils protrude from opposite sides of a body. Consequently, neither Vowles nor Arnold make up for the deficient teachings of Cockerell, because neither Vowles nor Arnold, alone or in combination, teach or suggest "a body [and] first and second control members protruding from respective sides of the body ..., said control members being mounted for rotation in unison about a common axis ...," as is recited in claim 45.

Because neither Cockerell, Vowles, nor Arnold, considered alone or in combination, teach or suggest all of the features of claim 45, Applicant respectfully requests that the rejection of the present claims be withdrawn.

CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections, and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

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